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IN THE UNITED STATES DISTRICT COURT  
DISTRICT OF UTAH, CENTRAL DIVISION

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UNITED STATES OF AMERICA,

Plaintiff,

vs.

AARON MICHAEL SHAMO,

Defendant.

Case No. 2:16-cr-631DAK

NOTICE RELATING TO EXPERT  
TESTIMONY PURSUANT TO  
Fed.R.Crim.Pro. 16(a)(1)(G) AND  
Fed.R.Evid. 702

Judge Dale A. Kimball

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The United States of America, by and through the undersigned Special Assistant United States Attorney, and pursuant to Rule 16(a)(1)(G) of the Federal Rules of Criminal Procedure and Rule 702 of the Federal Rules of Evidence, hereby provides to the defendant the following notice relating expert testimony the United States may offer in the trial of this case. The United States hereby offers this notice regarding the potential expert testimony of Special Agent Guy Gino of Homeland Security Investigations. The summary of the testimony of these individuals and the basis for the same is listed below.

**A. Rule 16(a)(1)(G) Summaries:** The United States may offer expert testimony on the following subjects:

*1. The Dark Web, Dark Net Marketplaces, AlphaBay, Encrypted Communications and Cryptocurrencies*

The United States will offer expert testimony from Special Agent Guy Gino of Homeland Security Investigations (HSI) regarding the Dark Web, Dark Net Marketplaces generally and AlphaBay specifically, encrypted communications (including PGP encryption and Sigaint email accounts), and cryptocurrencies (including Bitcoin, how Blockchains work, and methods and means used to convert cryptocurrencies into fiat currencies, and the use of tumblers).

Special Agent Gino's testimony will be that the Dark Web is a subset of the Deep Web, is not indexed by surface web search engines, such as Google, and requires special internet browsers and computer applications to be accessed. He will explain Dark Nets are overlay networks which require special browsers or configurations to access.

Special Agent Gino's testimony will include a discussion of Dark Net Markets generally, including some of the benefits and disadvantages of Dark Net Markets for vendors and consumers, including, for example, anonymity for consumers and vendors, and the risk of exit fraud committed by site administrators. He will testify about how these marketplaces generally operate, efforts by Vendors who run virtual storefronts to remain anonymous and outside law enforcement's knowledge or law enforcement's ability to disrupt or dismantle their activities.

Specifically to AlphaBay, Special Agent Gino will testify regarding how the marketplace operated, how consumer and vendors would have accessed AlphaBay, accounts on AlphaBay, six-digit withdrawal PIN, account profiles, trust levels, the feedback system, the role of arbitrators in dispute resolution, the process from placing an order to the vendor being paid including the role AlphaBay played as an escrow, finalizing transactions early, the ability for a vendor to allow another vendor account to have partial access or control of the vendor's account,

communications with customers, and the types of items or services sold on AlphaBay.

In context with his testimony about AlphaBay, but also more generally, Special Agent Gino will testify on how Pretty Good Privacy (PGP) encryption works and how AlphaBay required that its vendors use it to access their accounts on the AlphaBay site. Special Agent Gino will discuss the creation of public and private PGP keys, PGP key rings, and he will give his opinion that two files seized from the defendant's iMac computer contained public and private PGP keys associated with Pharma-Master. Special Agent Gino will testify about his analysis that led to his conclusion.

Special Agent Gino will likewise testify about Sigaint email accounts, including how Sigaint accounts could be accessed via either the surface web or Dark Web. He will testify about how Sigaint email communications were more secure than typical email providers and about law enforcement's inability to use legal process to obtain stored communications from Sigaint.

Special Agent Gino will testify about cryptocurrencies generally, and Bitcoin specifically. Special agent Gino will explain the nature of Bitcoins, how they are obtained, stored in wallets, and spent on goods and services. Special Agent Gino will testify about the nature, genesis, and role of the Bitcoin blockchain and explain the role and incentives for blockchain miners. He will discuss cryptocurrency forks, both soft and hard, including hard forks that created Bitcoin Cash and Bitcoin Gold. Special Agent Gino will discuss the existence and use of bitcoin tumblers. Special Agent Gino will discuss various cryptocurrency wallets. He will testify about wallet addresses, keys, and the process to recreate a lost wallet.

Special Agent Gino will testify about the ways by which a person can purchase and/or sell cryptocurrencies, such as Bitcoin, for fiat currencies, including the use of services such as commercial Online Digital Currency Exchangers, Bitcoin ATM/Kiosks, or by finding willing

trade partners on online exchange sites such as localbitcoins.com. Special Agent Gino will discuss the costs and benefits of engaging in the types of transactions mentioned above.

For example, sellers of Bitcoin on localbitcoins.com sell for higher (meaning less advantageous) than the market exchange rate in exchange for anonymity, whereas commercial Online Digital Currency Exchangers offers favorable exchange rates, but require the customer to verify their identity and bank account—and in most instances are subject to United States' legal process.

Special Agent Gino will also discuss the historical value of Bitcoin to US dollars in the period of time covered by the Second Superseding Indictment and continuing through the present time. To aid his testimony, Special Agent Gino has prepared a short set of slides to show the jury; those slides have been attached as Attachment A. For the slides that contain short video clips, the United States will burn a disk containing the slides for the defense.

**B. Expert Qualifications:** Rule 702 of the Federal Rules of Evidence provides that:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.<sup>1</sup>

The Committee Note to the rule provides that if the witness is relying solely or primarily on experience, then the witness must explain how the experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts.<sup>2</sup>

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<sup>1</sup> FRE 702.

<sup>2</sup> FRE 702,

The United States makes the following proffer to satisfy the requirement of Rule 16(a)(1)(G) of the Federal Rules of Criminal Procedure that the summary of expert testimony provided by the government describe the witness's opinions, the bases and reasons for those opinions, and the witness's qualifications.<sup>3</sup> The Court has discretion in how it makes its reliability determination.<sup>4</sup> The Government suggests this proffer should suffice; this is not a close call.

1 Special Agent Guy Gino. The United States has identified Special Agent Gino as an expected expert witness in this case in the area of the Dark Web, Dark Net Markets, AlphaBay, encrypted communications, and cryptocurrencies. He is qualified as follows:

Special Agent Gino has been a Federal law enforcement officer for over twenty two (22) years. He has been a criminal investigator with Homeland Security Investigations for over fifteen years. His curriculum vitae is attached herewith as Attachment B. Since 2008, Special Agent Gino has been assigned to the Oregon/Idaho HIDTA Interdiction Task Force (HIT) based in Portland, Oregon. Among Special Agent Gino's duties is the investigation of major Dark Net narcotics vendors. His duties include money laundering investigations stemming from the trafficking of narcotics, investigative analysis of Dark Net-facilitated criminal matters, liaising with drug investigative agencies for state and local law enforcement as they may relate to possible violations of the controlled substances laws of the United States, and coordination of local, state, and federal resources to investigate, disrupt and dismantle Dark Web-based drug trafficking organizations (DTOs) engaged in the manufacture and sale of controlled substances. Special Agent Gino's team places particular emphasis on investigating drug-overdose fatalities in the greater Portland, Oregon, area.

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<sup>3</sup> FRCP 16(a)(1)(G).

<sup>4</sup> See United States v. Velarde, 214 F.3d 1204, 1208-09 (10<sup>th</sup> Cir. 2000)

Special Agent Gino's training and experience, which he gained prior to the investigation of this case, was provided by the Federal Law Enforcement Training Center (FLETC), other law enforcement-sponsored analytical training, and on-the-job training related to the recognition of illegal drugs and drug paraphernalia, and the investigation of Dark web-facilitated drug trafficking offenses and offenders, including those who sell fake or mislabeled controlled substances.

FLETC instruction included class work and practical exercises in surveillance and counter-surveillance techniques, the use and deployment of confidential informants and undercover agents, the execution of search warrants and the collection and analysis of any evidence obtained through the search warrants, and the use of electronic monitoring and recording devices.

On-the-job training and experience has included several high-profile investigations of major Dark Net vendors, men and women responsible for selling drugs that killed consumers throughout the United States. In addition to his work in the investigation into Pharma-Master, Special Agent Gino also investigated and de-anonymized "PeterTheGreat" and "NarcoBoss," two other prolific AlphaBay vendors. On-the-job training and experience has also included extensive experience in identifying drug trafficking techniques and other modes and methods of operation used by Dark-Web-based DTOs, including methods of transportation, shipment, encrypted communications, packaging, concealment, distribution, valuation, and sourcing. Special Agent Gino has gained training and experience in the nature, use, storage, transmission, tracking, analysis, and seizure of cryptocurrencies, including Bitcoin. He has used seed recoveries to recreate cryptocurrency wallets held by suspects of his investigations. Special Agent Gino has experience investigating DTOs that traffic methamphetamine, heroin, cocaine,

fentanyl, alprazolam, U-47700, and other illegal drugs.

In addition to his own personal experience, Special Agent Gino has relied on information and experience collectively derived from other investigations conducted by the Drug Enforcement Administration and FBI throughout the United States to gain his expertise. Information gained from other agents and agencies also includes the collective, cumulative experience of those agencies in the methods, modes, and techniques used by Dark Web-based DTOs.

Special Agent Gino trains law enforcement on the subjects for which he is being proposed as an expert. He has trained extensively throughout the United States and has previously trained foreign governments, at the request of United States.

RESPECTFULLY SUBMITTED this 26th day of November, 2018.

JOHN W. HUBER  
United States Attorney

/s/Michael Gadd  
MICHAEL GADD  
Special Assistant United States Attorney